IN THE CLAIMS:

1. (Currently Amended) A method of determining a corresponding image for a reference image from an image sequence of a moving object by means of a first and a second motion signal, in which

the first and the second motion signal represent the respective variation in time of the states of motion of a first motion and a second motion of the object, the first and second motion signals being generated by a first type of device,

the image sequence represents the first motion of the object as a sequence of images of states of motion, the image sequence being generated by a second type of device,

the reference image represents a state of motion from the second object motion and is acquired at a reference instant during the second motion of the object, including the following steps:

a. examining the first and the second motion signal for similarities to determine a similarity function,

b. calculating a correspondence instant in the first motion signal by means of the similarity function, the correspondence instant corresponding to the acquisition instant of the reference image from the second motion signal, and

c. defining the corresponding image by identification of the image sequence whose acquisition instant corresponds at least approximately to the correspondence instant,

wherein the corresponding image represents at least approximately that state of motion of the moving object which is represented in the reference image, wherein the similarity function is obtained by means of a dynamic time warping method.

2. (Cancelled)

3. (Previously Presented) A method as claimed in claim 1, wherein an interpolation image is formed from the corresponding image and a further image from the image sequence, which interpolation image represents at least substantially the state of motion of the object at the correspondence instant.

4. (Previously Presented) A method as claimed in claim 1, wherein the first and the second motion signal form an electrocardiographic signal and that the images of the image sequence and the reference image represent states of motion of a human or animal heart.

5. (Previously Presented) A method as claimed in claim 4, wherein the blood vessels of the heart are filled at least partly with a contrast medium either in images of the image sequence or in the reference image.

6. (Previously Presented) A method as claimed in claim 1, wherein the image sequence forms an X-ray image sequence and/or the reference image forms an X-ray image.

7. (Previously Presented) A method as claimed in claim 1, wherein the image sequence and/or the reference image forms an ultrasound image.

8. (Currently Amended) A system which includes a data processing unit for defining a corresponding image of a moving object for a reference image from an image sequence by means of a first and a second motion signal, the first and second motion signals being generated by a first type of device, the image sequence being generated by a second type of device, the data processing unit being arranged to at least examine the first and the second motion signal for similarities to determine a similarity function, calculate a correspondence instant in the first motion signal by means of the similarity function, the correspondence instant corresponding to an acquisition instant of the reference image from the second motion signal, and define the corresponding image by identification of the image sequence whose acquisition instant corresponds at least approximately to the correspondence instant, wherein the corresponding image represents at least approximately that state of motion of the moving object which is represented in the reference image, wherein the similarity function is obtained by means of a dynamic time warping method.

9. (Currently Amended) An examination apparatus which includes an X-ray image detector and means for the detection of electrocardiographic signals, which apparatus includes a system with a data processing unit for determining a corresponding image of a moving object for a reference

image from an image sequence by means of a first and a second motion signal, the first and second motion signals being generated by a first type of device, the image sequence being generated by a second type of device, the data processing unit being arranged to at least examine the first and the second motion signal for similarities to determine a similarity function, calculate a correspondence instant in the first motion signal by means of the similarity function, the correspondence instant corresponding to an acquisition instant of the reference image from the second motion signal, and define the corresponding image by identification of the image sequence whose acquisition instant corresponds at least approximately to the correspondence instant, wherein the corresponding image represents at least approximately that state of motion of the moving object which is represented in the reference image, wherein the similarity function is obtained by means of a dynamic time warping method.

10. (Currently Amended) A computer readable storage medium having computer instructions for causing a computer to perform the steps of:

examining the first and the second motion signal for similarities to determine a similarity function, calculating a correspondence instant in the first motion signal by means of the similarity function, the correspondence instant corresponding to an acquisition instant of the reference image from the second motion signal, and defining the corresponding image by identification of the image sequence whose acquisition instant corresponds at least approximately to the correspondence instant, the first and second motion signals being generated by a first type of device, the image sequence being generated by a second type of device, wherein the corresponding image represents at least approximately that state of motion of the moving object which is represented in the reference image, wherein the similarity function is obtained by means of a dynamic time warping method.

11. (Previously Presented) The method of claim 1, further comprising performing recursion analysis to obtain the similarity function.

12. (Previously Presented) The method of claim 1, wherein the similarity function is monotonic.

13. (Previously Presented) The system of claim 8, wherein the similarity function is obtained by performing recursion analysis.

14. (Previously Presented) The system of claim 8, wherein the similarity function is monotonic.

15. (Previously Presented) The apparatus of claim 9, wherein the similarity function is obtained by performing recursion analysis.

16. (Previously Presented) The apparatus of claim 9, wherein the similarity function is monotonic.

17. (Previously Presented) The storage medium of claim 10, wherein the similarity function is obtained by performing recursion analysis.

18. (Previously Presented) The storage medium of claim 10, wherein the similarity function is monotonic.